GM'S CHIEFS SPEAK OUT • SPECIAL 1992 INVESTOR'S GUIDE

MARCH 9, 1992

FORTUNE

AMERICA VS. THE WORLD

How U.S. Industry Really Stacks Up

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FORTUNE

ABOVE: Some 40% of the milk carton stock produced at this Potlatch paper mill in Idaho is exported. Photo by Robbie McClaran.

COVER: America's industrial competitiveness hinges on how well it invests and innovates. Photo by Phil Schofield (AllStock).

"The tax system favors real estate, agriculture, and consumption in general, not manufacturing."

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The hard, cold reality: Though quality and exports are rising overall, and the rapid decline of once great, made-in-the-U.S.A. industries like steel and autos may have slowed, American companies continue to lose ground in many of the markets that promise the fastest growth and the biggest profits of the coming decade. FORTUNE reports from the trenches on 13 industries—who's ahead and who's most likely to fall behind. *by Andrew Kupfer*

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"Our plan is based on being profitable at whatever share of the market we get."

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"It is essential that Japanese companies compete according to the same rules as the rest of the world."

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"Not every woman can nurse a baby, bake a cake, and then go out and kill. But some can."

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"I live by a Warren Buffett maxim: 'Buy stocks like you buy your groceries, not like you buy your perfume.' "

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"Our ancestors had an abundance of leisure. When capitalism raised incomes, it also took away time."

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"You can't save your way out of trouble; you've got to sell your way out."

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EDITOR'S DESK

JOHN ABBOTT

GM's Chairman Robert Stempel (center) with editors Taylor, Morrison, Loeb, and Johnson

THE FIRST-PERSON interview can be a particularly revealing form of journalism—witness FORTUNE's recent exclusive interviews with Wal-Mart's Sam Walton, IBM's John Akers, GE's Jack Welch, Microsoft's Bill Gates, and Next Inc.'s Steve Jobs, among many others. In this issue we present you with a grand slam: a rare, probing interview with the seven men who sit atop the world's largest industrial enterprise.

Since he became chairman and CEO of General Motors 19 months ago, Robert Stempel has maintained a relatively low profile; he's been too busy running and reorganizing the company to talk much with the press. But when he finally agreed to an extended interview with FORTUNE's editors, he insisted on including all six of his top executives, among them President Lloyd Reuss and vice chairmen Robert Schultz and Jack Smith, and set a time limit of two hours. The result of that session, beginning on page 50, is a revealing look at the automaker's turnaround plans.

On hand with me for the interview in GM's historic Detroit headquarters were assistant managing editor Ann Morrison, senior editor Keith Johnson, and FORTUNE's ranking auto specialist, Alex Taylor III, a member of our board of editors. Taylor, who has closely followed the industry since he was a business reporter for the Detroit *Free Press* in the late 1970s, was impressed by the candid, wide-ranging meeting: "Seeing and hearing all seven of the top executives together gave me a new insight into how this company is facing up to its economic and competitive challenges."

Stempel is clearly a close FORTUNE reader, though not always an uncritical one; he admitted filling the margins of Taylor's most recent cover story about the company, "Can GM Remodel Itself?" (January 13), with scribbled rebuttals. As Stempel said, "Why do I do that? Because my phone starts ringing off the hook with people saying, 'FORTUNE says! FORTUNE says!' And I have to be prepared to answer those questions."

Alex Taylor's provocative journalism has received recognition from other quarters as well. Citing the many distinguished stories he has written for our magazine over the past three years, the Washington (D.C.) Automotive Press Association in January named him Journalist of the Year.

Marshall Loeb

MANAGING EDITOR

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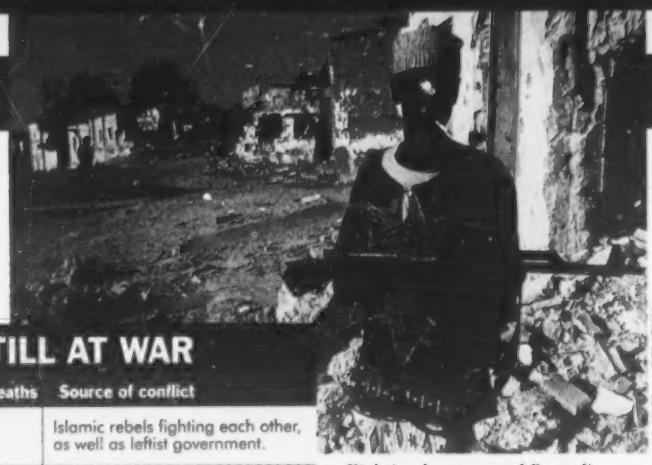


Fighting has ravaged Somalia.

A WORLD STILL AT WAR

Country	Number of 1991 deaths	Source of conflict
Afghanistan	2,000	Islamic rebels fighting each other, as well as leftist government.
Burma (Myanmar)	5,000	Ethnic minorities battling military dictatorship along borders. Nobel winner still imprisoned.
India	6,500	Sikhs in Punjab and Muslims in Kashmir want independence from government.
Mozambique	2,000	Rightist rebels continue to battle formerly Marxist government in 17-year war.
Somalia	20,000[1]	Rival clans battling for power kill many civilians as well as each other in fierce fight for capital.
Sri Lanka	11,000[2]	Hindu Tamil Tigers fighting guerrilla war against army of Buddhist Sinhalese majority.
Sudan	2,000	Islamic fundamentalist military government fights black rebels in southern Sudan.
Yugoslavia	6,000	Croats and Serbs still battle over Croation independence, despite U.N.-sponsored cease-fire.

[1] Casualties since November 1991. [2] From June 1990 to December 1991.

COLD WAR OVER, OTHER WARS NOT

■ With the Pentagon closing down military outposts and canceling weapons systems, you would think that peace was at hand. You'd be wrong. Armed conflict—much of it civil war in underdeveloped nations—continues to exact a toll in human suffering and economic destruction (see table for some examples). War has plagued Somalia since 1988, while the fighting in Sri Lanka is in its 15th year. Peter Wallensteen, a professor of peace and conflict research at Uppsala University in Sweden, predicts there will be an increase in ethnic conflicts in the post–Cold War era.

But defense contractors like **General Dynamics** or **McDonnell Douglas** aren't likely to be selling to the regional combatants to recoup lost Pentagon profits. James Blackwell, director of political-military studies at the Center for Strategic International Studies in Washington, D.C., says that scarce resources and restrictions on arms exports make doing business with many of these countries either unprofitable or illegal. But U.S. defense companies will try to sell more to the Middle East. Saudi Arabia, for example, may spend more than $15 billion to modernize its army and air defenses.

What should the role of developed countries be? Wallensteen says they must strengthen international organizations like the United Nations to help resolve the world's remaining wars. **– A.J.M.**

HOW JAPAN HELPS U.S. EXPORTERS

■ Love to hate Japan? You won't get much sympathy from Donald Springer, chairman of the New York Fur Leather and Outerwear Exposition. Thanks to a three-day show set up in Tokyo last year with the help of a little-known Japanese government agency, he and 29 other New York fur manufacturers met over 1,000 buyers and sold $8 million in furs. Says Springer: "Business has been tough, and it helped keep us alive another year."

The furriers' way into Japan was paved by Jetro, short for Japan External Trade Organization. Created in 1958 to encourage Japanese exports abroad, Jetro now concentrates on promoting imports into Japan. Overall, the Japanese have budgeted nearly $1 billion to help finance imports from the U.S., according to American officials. Still, that's only one-fortieth of Japan's trade surplus with the U.S., which is straining transpacific relations.

To find goods Japanese companies want to buy, Jetro trade experts have visited 17 U.S. states since September 1990. In Tennessee they found Dorothy "Dot" Smith, president of **Pepper Patch**, a small specialty food company that makes Tipsy Cakes, a pecan concoction laced with Jack Daniel's whiskey, a Japanese favorite.

Jetro's biggest single deal: a $4 million sale of full-line vending machines produced by **Crane Co.**, the U.S. leader. Crane's machines cost 40% less than similar Japanese models, and Jetro helped it meet Japan's complicated regulatory requirements. **– Ann Reilly Dowd**

U.S. business is slow, but Donald Springer can still sell fur coats in Japan.

JOHN ABBOTT

TERMITE TIME

■ Termites are back. They emerge from their nests in late winter and early spring, when thaws encourage them to swarm. Thousands of creatures that look like ants with wings can fly through a house for several hours seeking new places to colonize. Left behind will be up to a million worker termites that can chew up your staircase and digest the floor joists as they cart the digested wood to the queen. She, meanwhile, will be busy creating new offspring. Given the love termites have for heat and humidity, it's no surprise that Miami is America's most infested city.

The arrival of a supertermite could make the situation worse. Some Southern states—including Florida, Texas, and Louisiana—are battling the formosan, a rarer, hardier ter-

HOW AMERICAN INDUSTRY STACKS UP

Quality and exports are rising. But the U.S. is still losing ground in many markets that promise the fastest growth. Who's ahead—and who's likely to fall behind? ■ *by Andrew Kupfer*

YOU ARE LOOKING for signs that U.S. manufacturers have regained their muscle after a decade of Wall Street–inspired financial fiddling. You are tired of hearing how the country has lost its knack for making things—and especially tired of unsolicited advice from Japanese politicians who claim that the problem is "lazy" U.S. workers. Like millions of recession-weary Americans, you yearn to be an optimist again.

As Charlie Brown would say, "Sigh." For a cold, hard look at the numbers brings with it a cold, hard reality: On balance, the pain endured by American industry in the 1980s has yet to translate into major gains, either in market share or in relative competitiveness.

Yes, the quality of many products—from customized computer chips to recycled toilet paper—has vastly improved. The U.S. also exports far more airplanes, instruments, and other capital equipment now than it used to—45% of capital goods output, vs. 20% in the late 1960s, when America's industrial predominance was unchallenged.

But Asian and European rivals have been polishing their product lines just as vigorously. And some of the credit for that capital goods export boom goes to foreign manufacturers, which have invested heavily in U.S. operations since 1980. Finally, though the rapid decline of once great, made-in-the-U.S.A. industries like steel and autos may have slowed, American companies continue to lose ground in many markets that promise the fastest growth—and biggest profits—over the next decade.

How *does* the U.S. stack up? The scorecard gives our bottom line on the strength of 13 industries. An A implies a dominant position in the world, one not likely to erode significantly in the 1990s. B suggests solid leadership, shared with others. C connotes vulnerability and the risk of continued decline. D means a business is basically on its back.

What's troubling is not that this report card is so bad—after all, it does contain two A's and six B's. But ten years ago, computers and telecommunications equipment would have been arrayed, along with pharmaceuticals and forest products, in the top-rated category. Cars, aerospace, and industrial equipment would also have scored higher.

Since no single measure of competitiveness gives the whole picture, FORTUNE looked at three types of evidence to arrive at its ratings.

We began by examining industrial production by country, using data collected by the Organization for Economic Cooperation and Development in Paris, the definitive clearinghouse for such statistics. Comparing 1980 with 1989, the latest year for which figures are available, we asked what was the total value, in local currencies, of the electrical equipment or computer hardware made in the U.S., Japan, and ten European countries. We then converted that production to dollars and calculated the share of the total that each claimed. The charts that dot subsequent pages of this story reflect those shifting shares.

This way of dicing the data told us plenty about the relative attractiveness of the U.S. as a place to manufacture. But it blurred the performance of U.S. companies because it includes the output of foreign-owned plants. For example, GM's factories in Rüsselsheim get tallied as German production, while Nissan's plant in Smyrna, Tennessee, counts as American.

To focus more closely on the competitiveness of America's multinational corporations, we looked to research by management professor Lawrence Franko of the University of Massachusetts. Franko relies on another important international database—FORTUNE's lists of the 500 largest U.S. and global companies. For each year from 1960 to 1990, he has tallied the combined annual revenues of the 12 largest companies in various industries and calculated the U.S. share of that total.

When both Franko's company data and the OECD's country data are declining in tandem, you can be sure you've got trouble—right here in River City, or wherever. Conversely, when both are rising, you're in Fat City. Unfortunately, American companies have increased their share of sales in only two of our 13 industry groups—food and scientific and photographic equipment.

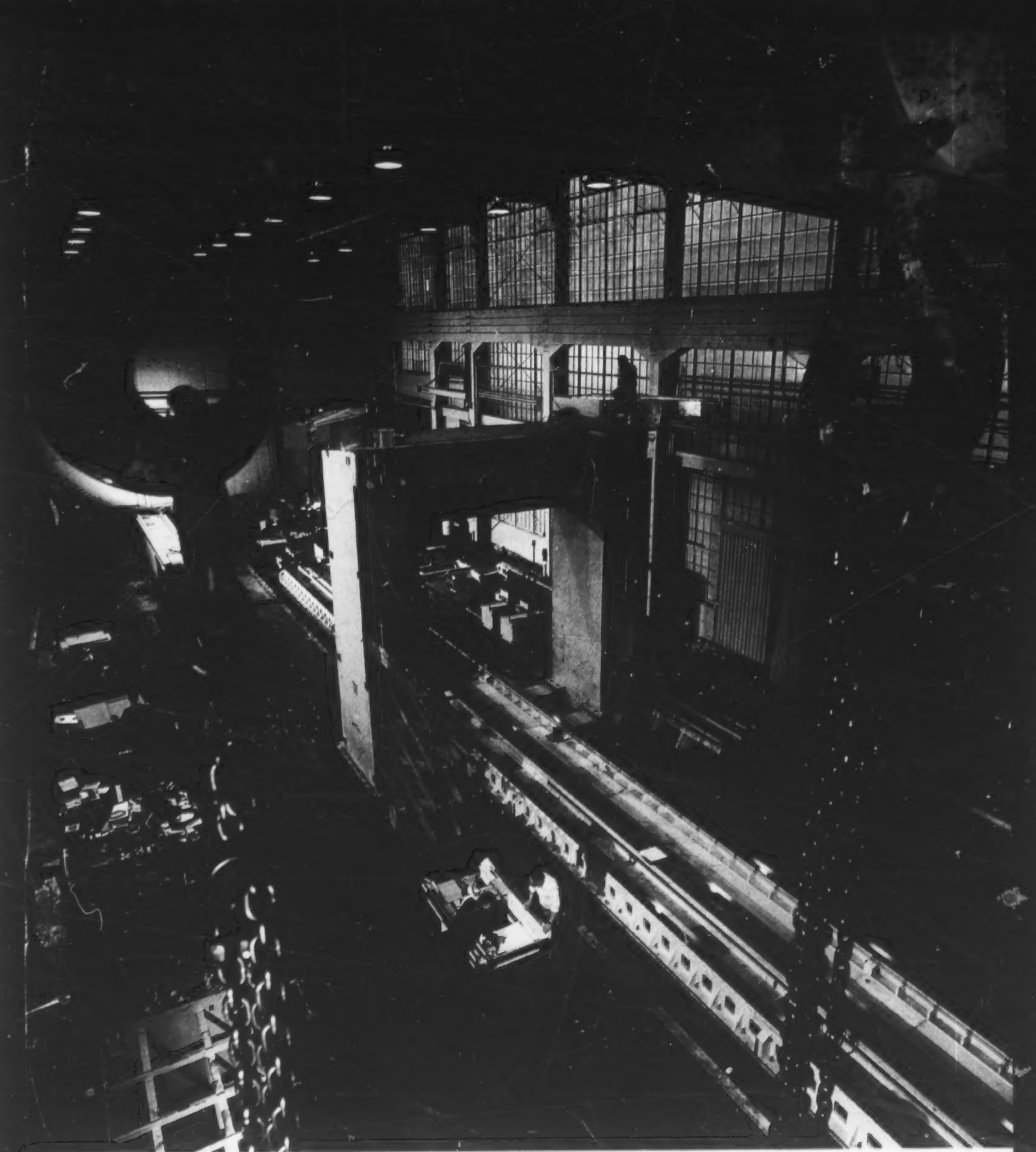
To round out the picture, FORTUNE in-

SCORECARD
in 13 Key Industries

Grades measure U.S. competitiveness relative to Japan and Europe. They reflect production data, company performance, and expert opinion.

A	PHARMACEUTICALS
A	FOREST PRODUCTS
B+	AEROSPACE
B	CHEMICALS
B	FOOD
B	SCIENTIFIC & PHOTOGRAPHIC EQUIPMENT
B	PETROLEUM REFINING
B-	TELECOMMUNICATIONS EQUIPMENT
C+	COMPUTERS
C	INDUSTRIAL & FARM EQUIPMENT
C	MOTOR VEHICLES
C-	METALS
D	ELECTRONICS

PHOTOGRAPH BY JAMES SCHNEPF



By building this automated planer mill, one of the world's largest, Wisconsin's Giddings & Lewis hopes to strengthen the U.S. machine tool business.

WENDY DUREN

As ketchup bottles fly by, a Heinz worker in Ohio checks labels. The U.S. leads in food production.

terviewed dozens of industry analysts, trade association representatives, academics, and corporate executives. The experts filled in what has happened to these 13 industries since 1989 and helped us assess not just where they've been but also where they are going.

The experts' observations, in turn, gave rise to a few broad themes that politicians and business leaders should heed if they hope to lift American competitiveness. First, U.S. manufacturers must somehow stop playing a perpetual game of catch-up with Japan. In the 1970s, while Americans concentrated on volume, the Japanese focused on cost. When the U.S. turned its eyes to cost, Japan moved on to quality. Now that the quality revolution has taken hold here, Japan is embracing what Harvard business school professor David Garvin calls "post just-in-time manufacturing." This involves speeding product development as well as production, with the goal of halving the time it takes to roll out a new manufactured good.

Second, the U.S. has to clarify its thinking about foreign investment in American business. The fivefold growth in that investment since 1980 has given rise to enormous anxiety. But more often than not, foreign ownership of U.S factories is a boon.

Consider what happened when Thomson of France bought GE's consumer electronics businesses. Marty Holleran, formerly with RCA and now head of Thomson's U.S. consumer electronics business, claims that GE "never had the commitment" his business required. By contrast, Thomson has spent over $300 million in the past three years to upgrade its U.S. manufacturing facilities, which include the world's largest TV factory, in Bloomington, Indiana.

Still, welcoming foreign investment doesn't mean the U.S. should blithely accept becoming a mere assembly site for companies that make technologically critical parts elsewhere. In 1988, the most recent year for which data are available, U.S. affiliates of foreign corporations imported $150 billion worth of merchandise—over a third of total U.S. imports. About 30% of those imports were auto parts, many of them high-tech. "Where in a car is the value added?" asks Maryann Keller, a top-rated analyst with Furman Selz, a New York investment bank. "In the production and knowledge of its components—the suspensions, engines, electronics. The country as a whole is a little richer from having that capability within its borders." That's why she advocates a strong domestic-content law for cars.

One of the best ways to strengthen America's technological leadership is to figure out how to speed the development and dissemination of new ideas among U.S. companies—and not just high-tech ones. The rapidity with which the Japanese adapt technology to manufacturing processes is a big reason why their productivity growth has outstripped America's by more than a third since 1979. (The other reason, which reflects Japan's higher savings rate, is a fourfold edge in capital formation.) Europe's productivity growth, savings, and investment have also outpaced America's—and that rate should pick up as European unification advances.

REPORTER ASSOCIATE *Jessica Skelly von Brachel*

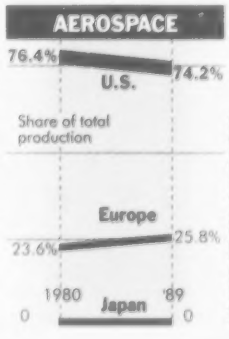
Now, for a trench-level view of how the U.S. will fare in future battles for global market share, let's look closer at those 13 industries, in alphabetical order.

■ **AEROSPACE.** In the air the U.S. still rules. American manufacturers produced a record $43 billion of aerospace exports in 1991—tops of any American industry by a wide margin. Boeing alone accounted for roughly $18 billion of those sales. Aerospace also generates America's largest trade surplus—$30 billion. Despite the prospect of declining defense sales, the underpinnings of this business look strong. Forecasters expect world airline capacity to double by 2005.

Even so, turbulence is building. The main threat: Europe's Airbus Industrie, jointly owned by aerospace companies from Britain, France, Germany, and Spain. Launched in 1969, Airbus now claims 30% of the market for commercial jets and has more than 100 customers. Propelling its ascent are solid design, aggressive marketing, and some $26 billion in government subsidies, according to Gellman Research Associates, which studied this issue for the U.S. Commerce Department. Says economist David Vadas of the Aerospace Industries Association of America: "When Airbus started, they said they wanted only a 20% market share. They have now targeted 37% by the end of the decade."

Frank Shrontz, chief executive of Boeing, sees another cloud forming as a result of the recent decision by McDonnell Douglas, the second-largest U.S. planemaker, to sell 40% of its commercial aircraft business to Taiwan Aerospace for $2 billion. McDonnell needed the money to afford the cost of developing a new wide-body airplane. Says Shrontz: "Our concern is that the new Douglas entity might become another subsidized competitor shielded from market reality—an Asian Airbus."

Japan is not a big factor in this industry, yet. Japanese companies are gearing up to make engines, electronic systems, and parts. The Commercial Aircraft Co., a consortium formed by Mitsubishi, Kawasaki, and Fuji Heavy Industries, now makes the fuselage for the



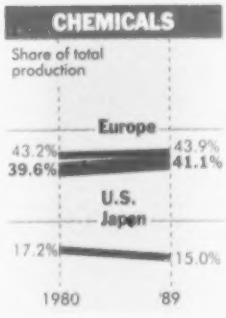
Boeing 767 midsize plane, and will make frame parts for Boeing's new 777 widebody jet. Japanese companies have joint ventures with Pratt & Whitney and Rolls-Royce to develop a high-performance, low-noise, low-pollution jet engine, and with General Electric to develop and produce the world's largest jet engine for the Boeing 777. Japan also is looking to parlay its expertise in electronics into skill in avionics. Coupled with its joint venture experience, that ability may let it join with U.S. or European companies as an equal partner when the time comes to build the new generations of supersonic and hypersonic planes.

Still, with Boeing in the vanguard, the U.S. should remain the world leader in this robust, high-stakes industry. The biggest threat, says Boeing's Shrontz, is that U.S. trade negotiators won't hang tough enough to persuade foreign governments to shut off their subsidy spigots: "This issue must be resolved. Enough is enough."

■ CHEMICALS. The U.S. still produces more chemicals than any other country in the world—$286 billion in 1990. That's partly because America's chief rivals—Europe's chemical giants—are extremely active on U.S. soil: BASF of Germany and ICI of Britain, among others, are both billion-dollar companies here. (By contrast, no Japanese company is in the top dozen in chemicals.)

But it's also because the biggest U.S. companies—Du Pont, the world's largest chemical maker, Dow Chemical, and Monsanto—have reformulated themselves. Some, such as Dow, have gotten more in sync with their customers by reorganizing into units that serve specific industries rather than churn out specific products. Most have also adopted the strategy of scaling down their high-volume, low-profit lines of industrial and agricultural chemicals. They are moving instead into specialty chemicals and other high-value products. Monsanto has been the most radical, abandoning its commodity chemical business entirely. Result: U.S. chemical exports boomed to $39 billion in 1990, second only to aerospace, and the industry's trade surplus has more than doubled since 1985 to $16.5 billion.

Unlike basic chemicals, the demand for which ebbs and flows with the economy, specialty chemicals provide some shelter from cyclicality—as well as higher margins. They do so either by creating new markets, from super-strong adhesives to cavity-fighting toothpaste additives, or by helping manufacturers to save money. Nalco Chemical, a $1.2-billion-a-year Naperville, Illinois, company, will send a strike force to a customer to figure out how to treat the water used in its manufacturing processes—to prevent corrosion of equipment, for example, or to keep little creatures from growing where they shouldn't.

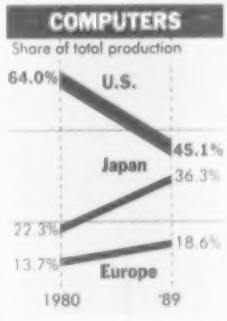


The key worry for U.S. chemical companies is the cost of environmental regulation, which could soar to $20 billion over the next decade, according to Gemini Consulting. The Europeans, in particular Germany, could well subsidize corporations that put in environmental controls. The U.S. government won't.

■ COMPUTERS. Conceiving and raising a child is tremendously satisfying. But it doesn't guarantee that the kid won't walk out on you once he matures. U.S. computer makers know the feeling. Their industry is now flourishing elsewhere. In some key parts of the business, foreign producers have already surpassed domestic manufacturers in revenues and know-how.

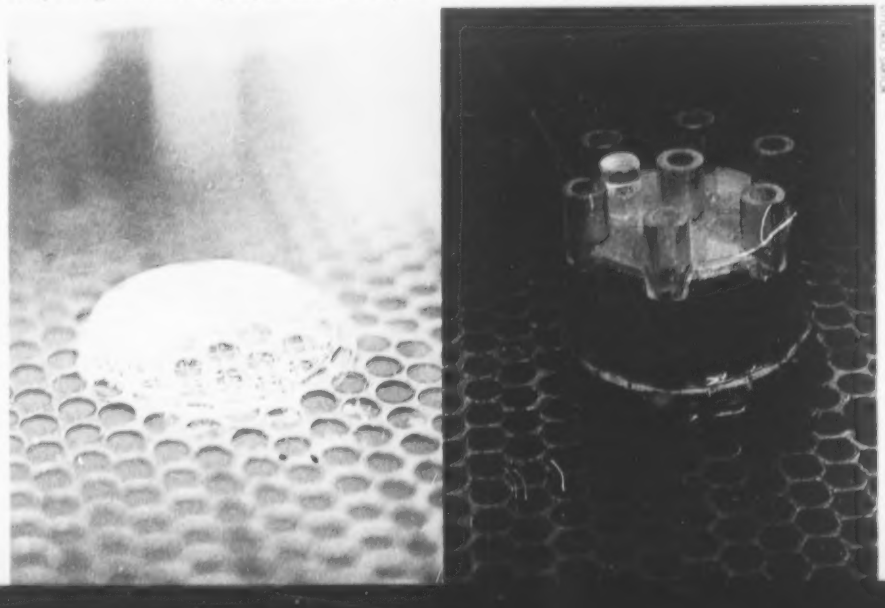
The culprit mainly responsible for robbing the American cradle is Japan. Computer production in that country tripled over the past decade, while U.S. output didn't quite double. Among the world's top dozen computer companies, by Franko's measure, the Japanese, led by Fujitsu, increased their share of global sales from 7% to 23%.

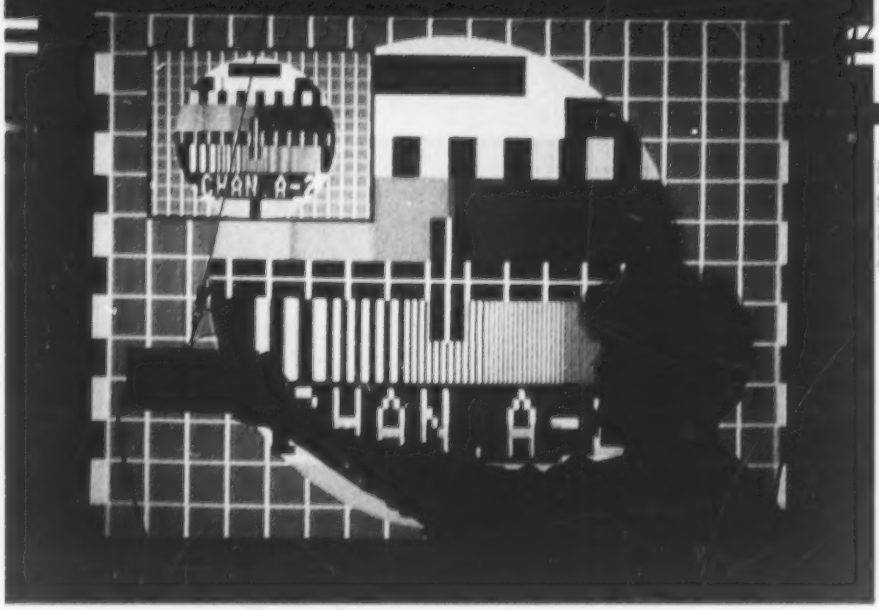
U.S. makers still claim a healthy 70% of the biggest companies' revenues. They also lead in the development of workstations, especially those based on new RISC technology (for reduced instruction set computing), which eliminates less frequently used circuits from computer chips and shifts instructions into the software, increasing speed. But rising imports have shrunk America's trade surplus in computer hardware from $7 billion in the early 1980s to under $1 billion in 1990. Most worrying: The U.S. has fallen behind Japan in critical parts of the industry—microelectronic components, chipmaking equipment, optoelectronics, printers, displays, and floppy disk drives.



Happily, the U.S. retains one big advantage that lies outside the scope of a story about manufacturing: software. More and more of the value in big computer systems lies in the software that controls them. With English as the universal business language, the U.S. has a natural advantage setting world standards. American companies also excel in writing the algorithms, or rules of procedure for problem solving, that let computers perform complex tasks, such as trans-

U.S. specialty-chemical makers, like Loctite of Hartford, are thriving in niche markets. Here, a computer-guided laser rapidly transforms a liquid resin (left) into a solid design prototype.





A worker checks a 46-inch screen at Thomson's TV plant in Bloomington, Indiana, largest in the world.

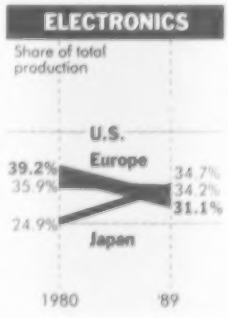
lating sound into digital signals. But here too Japan is coming on strong. Computer companies and consumer electronics companies, including Sony, have launched major drives to develop new operating systems. Expect the Japanese to keep building their share in computer hardware in the 1990s.

Despite a wave of mergers and billions of dollars in new investment, big European producers such as Siemens and Philips will likely continue to lose ground, as they have in the 1980s. The Europeans lack the R&D strength of their American counterparts and the production power of the Japanese.

Japan won't leap ahead of the U.S. unless its companies develop the ability to get to the market first with new generations of machines, and not just components. It's not the big boys of the U.S. industry, such as IBM—still the No. 1 computer maker in the world—that stand in their way, according to computer analyst Kiyohisa Ota of Nomura Research in New York. Instead, Ota points to America's innovative emerging growth companies—outfits like AST Research and MIPS Computer of Silicon Valley—as the crowd most likely to generate breakthrough discoveries.

■ ELECTRONICS AND ELECTRICAL EQUIPMENT. Like a rock. That's how fast the U.S. is sinking in consumer electronics. While small American electronics makers of the most expensive audio gear still do well with penthouse dwellers, in the mass market the U.S. is not much of a player. Production in Japan grew three times faster than in the U.S. during the 1980s, and European output grew nearly twice as fast. The Americans' share of sales among the top dozen electronics companies fell from 44% in 1980 to 11% by decade's end. Small wonder that the U.S. trade deficit with Japan in consumer electronics in 1990 was more than $10 billion.

What went wrong? Bill Krist, vice president of international affairs for the American Electronics Association, blames the government, at least in part: "The tax system favors real estate, agriculture, and consumption in general, not manufacturing." He must envy the competition in Japan, where the government used to assess a $10 tax on every color TV sold; all the money went toward research on high-definition TV.



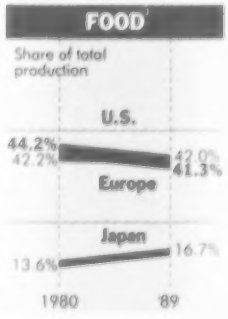
But American management is guilty too. Says Marty Holleran of Thomson Consumer Electronics: "The U.S. got out of the color TV market because its industry fell behind in integrated circuit technology." When TV prices dropped, American producers tried to keep profits up by boosting volume and cutting investment. They lost sight of quality and productivity and were blindsided by the Japanese, who had gained a foothold in the U.S. with their VCRs and camcorders. While Sony, Thomson, and other foreign manufacturers produce TVs in the U.S., Zenith, the only remaining American maker of sets, will soon build all of them in Mexico.

Despite their dominance, Japanese consumer electronics companies are facing minimal profits, mainly because they've captured about all of this slow-growing market they're likely to get. But their collective gambit has still paid dividends. By learning how to roll out high-quality consumer products cheaply and quickly, such companies as NEC and Panasonic are well positioned to shift into faster-growing areas like personal computers and cellular phones, which have been transformed by plummeting prices into mass markets.

The other half of the electronics game—electrical machinery—is a different contest. Here, the competition is over things like the turbines that generate electricity or the robots that put those turbines together. Here, too, the U.S. is recovering from lapses in quality, especially in standard products such as electric motors. Westinghouse bailed out of the power transmission and distribution business in 1989, selling its operations to Asea Brown Boveri of Switzerland. With the fall in the dollar, the U.S. electrical machinery business, led by GE, Cooper Industries of Houston—and ABB—is moving toward a positive trade balance for the first time since 1985.

The biggest chill is blowing from Europe. When a truly unified market becomes a reality at the end of 1992, factories that sell electrical products in Europe will need to be certified as meeting a new set of standards. These so-called ISO 9000 standards evaluate factories on every aspect of their operations, from training to manufacturing. U.S. exporters worry that the Europeans will wield the certification process as a nontariff trade barrier and shut them out.

■ FOOD AND DRINK. Raise a glass and pass the peanuts! The U.S. remains the world leader in making and distributing food and beverages. Exports aren't a big factor in this industry since each region of the world consumes nearly all it produces. Moreover, while people everywhere may be eating faster, they're not eating more. That fact, coupled with slow population growth in the developed world, limited growth in the global food business to 4% a year in the 1980s.



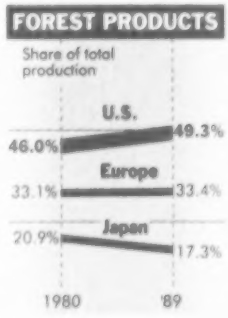
But American food and beverage companies beefed up sales by going on an acquisitions binge, both at home and abroad. According to a Nomura

Research report, Japanese food companies are growing by an average of only 4% a year, vs. 10% to 12% for U.S. companies. Operating income for Japanese food companies—none of which are among the world's 12 biggest—actually fell between 1985 and 1990, while it rose by about 20% a year for their U.S. counterparts.

The main challenge to American food supremacy: a unified Europe. With an arable land mass comparable to the U.S., the new Europe will be able to grow and process food much more efficiently once its member nations shed old rules that hampered cross-border comestibles. The rending of the Iron Curtain has opened a huge market in the East—and a new, low-cost source of supplies. While U.S. companies can buy their way in, they're likely to find that Western European food companies like Switzerland's Nestlé and France's BSN have already staked unbeatable claims. Exceptions: Coke and Pepsi.

These and other big blue-chip American players, such as Philip Morris and Nabisco, are all among the global top 12 in sales and should continue to do well. Not many people, with or without a blindfold, could tell the difference between a Cheeto (made by PepsiCo's Frito-Lay) and a Cheez Doodle (made by Borden's Wise); American marketing has made them think they can.

■ **FOREST PRODUCTS.** "The U.S. is to the paper industry what Saudi Arabia is to oil," says analyst George Adler of Smith Barney. (Both industries even rely on the same raw material, just at different stages in their life cycles.) But the U.S. leads not just because it has a lot of trees. American companies also have relatively lower labor and energy costs, and they invested more than $100 billion since 1980 to raise productivity and underwrite expansion into new products and markets. International Paper, which edges out Georgia-Pacific as the largest company in the industry, alone spent $8 billion since 1980 to modernize its mills and product lines.

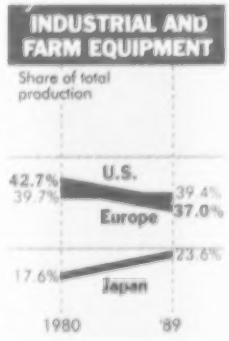


Fifteen years ago Canada supplied two-thirds of America's newsprint. Its market share has since been chopped back to 50%, partly because the Canadian dollar strengthened but also because U.S. companies built up their muscle in newsprint.

The international competition in forest products is mainly between the U.S. and tree-rich countries with tiny populations and big forest products companies—Sweden's Stora Kopparbergs, Finland's Repola, and Canada's Noranda. Though American producers in the past tended to focus on serving their huge internal market, exports have become increasingly important. In 1991 over 60% of America's market pulp production was shipped abroad. U.S. companies maintain they could export even more if Japan, the world's second-largest paper-consuming country, had a less restricted market.

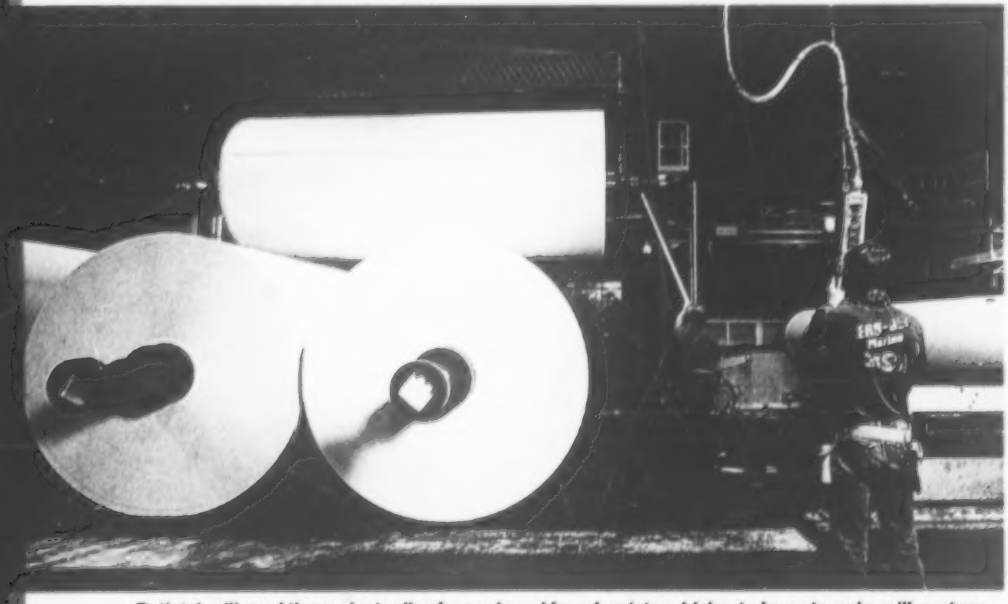
The big challenge in coming years will be from so-called nontraditional suppliers, such as Brazil and Chile, which enjoy a low-cost fiber supply. Both countries are increasing capacity, but you don't build a worldclass paper industry in a hurry or on the cheap. A single new pulp mill costs $600 million.

■ **INDUSTRIAL AND FARM EQUIPMENT.** In this bread-and-butter business, Japanese companies have been eating America's lunch. Long-established U.S. equipment makers thought their position unassailable and didn't invest enough at the beginning of the decade. As a result the U.S. share of total production is down by six percentage points, all lost to Japan, and that's not counting the sizable investment such Japanese companies as Komatsu have made in factories on U.S. soil. Industry restructuring and the weaker dollar have given the U.S. growing, though modest, trade surpluses since 1989. But only Tenneco, Caterpillar, and Deere remain in the top dozen global companies; in 1980 five American companies made the list. Japanese newcomers include Mitsubishi Heavy Industries and Komatsu.



For American and foreign competitors alike, the action is in developing countries. Caterpillar, which gets over half its revenues abroad, prefers to export rather than build more plants overseas—especially at a time of global overcapacity. So Cat executives oppose any policy that mucks up free trade.

High on their hit list is a 1987 Voluntary Restraint Agreement that froze imports of Japanese machine tools. Once upon a time—1955, to be precise—America's share of the global market for these automated power-driven tools, which transform metal into finished components, was 50%. Now it is 10%. Japan moved in on this market the same way it

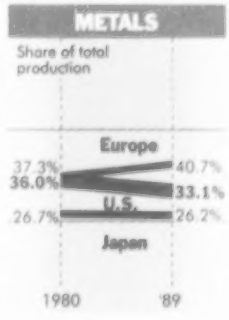


Potlatch will send these giant rolls of paperboard from Lewiston, Idaho, to Japan to make milk cartons.

did in so many others: by focusing on low-cost, high-quality mass production. It has built its global share from 1% to 23% and is now the world leader.

Some of the surviving American machine tool makers have used the shelter of the VRAs to reshape their operations. Giddings & Lewis of Fond du Lac, Wisconsin, has been investing 10% of sales in state-of-the-art flexible manufacturing equipment. But the major effect of the VRA has been to boost the price of machine tools while guaranteeing the Japanese a fixed unit share. According to the International Trade Commission, U.S. companies had to pay $157 million more for machine tools in 1987 and 1988 alone. That premium, in turn, makes American buyers of machine tools, like Caterpillar, less competitive.

METALS. No American manufacturer makes the list of the world's 12 largest steel companies; in 1980, three did (U.S. Steel, Bethlehem Steel, and Armco). Today, Japanese companies, such as Nippon and Sumitomo, and German ones, such as Thyssen and Preussag, dominate the big league. So how did the U.S. share of total production hold steady? Because of foreign investment. Every major U.S. steel company now has at least one joint venture with a non-American metal manufacturer: Armco with Kawasaki, National Steel with NKK, and U.S. Steel with Pohang Iron & Steel of South Korea.

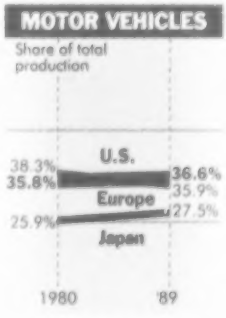


Japan leads the lot, having put more than $3 billion into joint ventures. Most of these concentrate on making high-quality sheet steel to supply Japanese carmakers now resident in the U.S. This trans-Pacific capital migration, bolstered by the decline in the dollar, has profoundly altered the pattern of the steel trade. In the U.S., imports have shrunk 6% annually over the past five years, and exports have risen 46% a year, albeit from a very low base. Imports are now 19% of U.S. consumption, down from 26% in the mid-1980s.

Foreign joint ventures have given the surviving American integrated steelmakers both the capital and the technology to improve their manufacturing processes. As a result, since the early 1980s, U.S. companies have cut in half the time they need to make a metric ton of steel, according to AUS Consultants of Morristown, New Jersey. They now even beat the Japanese (5.3 hours, vs. 5.5).

Today the big U.S. companies' main worry is their feisty red, white, and blue rivals—domestic mini-mills, which make steel not from scratch but from scrap. Mini-mill steelmakers, such as Nucor and Chaparral Steel, increased their share of U.S. production from 14% to 24% over the past decade. Where the integrated companies hope to stay ahead is in specialty steels, efficiently produced. Allegheny Ludlum has invented a process for stainless-steel manufacturing that reduces the number of steps from 20 to two.

MOTOR VEHICLES. Is the U.S. car industry screeching toward Dead Man's Curve? Pessimists point to the following facts. Detroit's Big Three collectively lost an estimated $6.8 billion in 1991—their worst year ever. The only reason production in the U.S. was able to keep pace with Europe and Japan in the 1980s is that Honda, Nissan, Toyota, Mazda, Mitsubishi, Subaru, and Isuzu all shifted manufacturing here. Despite those transplants, America's annual trade deficit in motor vehicles and equipment has climbed to almost $50 billion—cars and parts make up about two-thirds of the U.S. trade deficit with Japan. GM and Ford may still be the biggest car companies in the world, but their advantage has shrunk. In 1980 GM was four times the size of Toyota, measured by sales; in 1990 it was less than twice as big. Japan's share of the U.S. car market has grown from 20% to 30% since 1985.

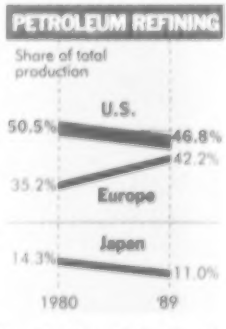


Still strapped into your seat? OK, here are some reasons to be optimistic. First and foremost, the quality ratings of U.S. cars improved dramatically since 1986, more than for comparable Japanese autos, which, of course, had less to fix. That focus on quality, in turn, is increasing the speed and lowering the cost of U.S. auto production: Ford now builds a Taurus in 18 hours, about the same time as Toyota takes for a comparable car. None of that means Detroit is going to regain share lost to Japan. But once the recession ends and profits rebound, it should be in a position to stand its ground.

The brightest spot for U.S. automakers is Europe. Despite its dismal track record at home, GM excelled on the Continent during the past decade. (For more on General Motors, see Autos.) According to auto analyst Maryann Keller, it makes the most competitive lines in Europe and has the newest cars. GM even has a bigger share of the East German market than Volkswagen. The European Community's decision last fall to grant a small increase in market share to Japanese car producers—their sales have long been restricted by quotas in the largest European countries—poses a small threat to GM and Ford. But the bigger losers will be heavily protected carmakers—Fiat, Peugeot, and Renault.

PETROLEUM REFINING. Geology is destiny. Don't expect a lot of change in an industry where the major input has been in place for millions of years and everyone is looking for it with pretty much the same tools. Ownership of reserves is still what makes the difference.

That's why U.S. oil and gas production remains nearly as big as Europe's and Japan's combined, though the plunge in prices since 1980 has cut the value of that production by 26%. Elsewhere, the large national oil companies in Saudi Arabia, Venezuela, Mexico, and even what remains of the old Soviet Union are all producing more than they were ten years ago.

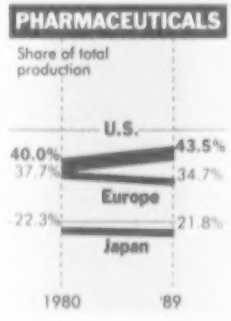


Despite their advantage in size, American petroleum refiners don't pump out richer profit margins than their foreign competitors. This failure surprised analyst Bernard Picchi of Salomon Brothers when he did a comprehensive study of the industry in 1991. "U.S. refiners are much more sophisticated than their European or Asian counterparts," he says. The U.S. produces significantly more gasoline, jet-grade kerosene, chemical feedstocks, and other higher-value products. The Europeans have

kept their profits up because their markets are still protected by regulation.

In the next decade the edge will go to companies that are good at securing new reserves. Developing nations, including Russia, will be inviting companies in to get their resources out. When pressed to name a first among equals, Picchi picks British Petroleum as a finder of oil. As for the technology of enhanced recovery, such American companies as Marathon and Atlantic Richfield are first-rate when it comes to massaging oil from the rock that contains it.

■ PHARMACEUTICALS. For worriers about U.S. competitiveness, America's drugmakers deliver a natural high. In this fast-growing market, U.S. production rose 145% between 1980 and 1989, outpacing both Europe (107%) and Japan (121%). Among professor Franko's top 12 pharmaceutical companies, Switzerland's Ciba-Geigy heads the list. But six U.S. companies, led by Johnson & Johnson and Bristol-Myers Squibb, have about 50% of the sales pot. And the U.S. remains the world center for research in the field, spurred in part by America's status as the only industrialized country where doctors and hospitals can charge pretty much what they like.



In the 1990s the European industry will get a boost from political and economic unification. Myriad national regulations have made it hard for Old World drugmakers to introduce new products across the Continent. But any easing of trade barriers in Europe should also benefit U.S. suppliers, which will be facing mounting political pressure back home to help hold down health care costs.

Japan currently has no representatives among the top 12 pharmaceutical companies. That may change in the 1990s; the Japanese share of new drug patents has doubled in the past 15 years, to 14%. Companies to watch: Takeda Chemical and Sankyo. Still, this is one industry where the U.S. lead looks unassailable.

■ SCIENTIFIC AND PHOTOGRAPHIC EQUIPMENT. U.S. companies have more than held their own in this grab bag category, which includes a few familiar names, like Eastman Kodak, Xerox, and 3M, and a far larger list of smaller fry, such as Millipore of Bedford, Massachusetts. (Millipore makes instruments and membrane filters used for everything from testing wine to sterilizing pharmaceuticals.)

Indeed, this is a rare example of an industry where production in the U.S. has grown faster than in Europe and Japan, even as America's share of the largest companies' sales also climbed—from 78% in 1980 to 86% in 1990. There is some doubt that these welcome trends will continue, however. A recent Commerce Department study identified medical devices and sensor technology as two areas in which the U.S. edge could be dulled by growing Japanese and European competition.

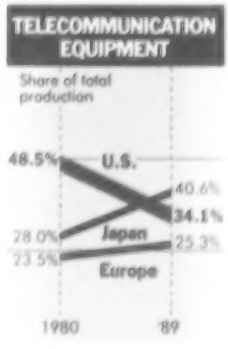
■ TELECOMMUNICATIONS EQUIPMENT. This group generates mixed signals. AT&T is still the world's biggest telecommunications company, accounting for 13% of the global industry's R&D spending. And U.S. companies still dominate the market for installing private networks for businesses.

But Alcatel of France has surpassed AT&T in worldwide sales of all telecommunications equipment. Other European and Japanese companies are also growing faster, which partly explains the steep decline in America's share of total production—down from 48% in 1980 to 34% in 1989. The other reason: U.S. equipment makers moved operations offshore, mainly to Asia, and now import a lot of their components. On balance, America is now running a $2 billion trade deficit in this industry.

As profit margins on standard phone equipment continue to shrink, new technology will separate winners from also-rans. FCC Chairman Alfred Sikes maintains the best thing he can do to help U.S. companies compete in new technologies like high-definition TV and personal communication networks is to remove some of the obstacles that now keep various players—local phone companies and cable TV companies, for example—off each other's turf.

Even with those barriers, American equipment makers are better prepared to thrive in a less regulated global telecommunications market than most of their foreign counterparts, which until recently were either state-owned or protected suppliers. NTT America President Taketo Suzuki, who buys equipment for the Japanese phone system overseas, recalls that ten years ago he couldn't even find high-end multiplexers in Japan to route phone traffic over the new digital telephone lines his company was installing. He bought them in the U.S.

What could cost the U.S. dearly, however, is its halfhearted embrace of fiber optics and advanced telephone service, or ISDN (for Integrated Services Digital Network). ISDN allows users to send different types of information—voice, data, graphics, and video—over a single phone line at the same time. By the end of this year all phone lines in France, Hong Kong, and Singapore will have ISDN capability, as will 87% of those in Japan. And in the U.S.? Only 19%. That reluctance of phone companies to invest until the returns are clear may hamper the ability of U.S. equipment suppliers to keep pace. Suzuki of NTT says: "In the U.S. ISDN and optic fiber to the home is almost thought of as nonsense. In Japan it's a slogan. ISDN is a worldwide phenomenon. Without it, the U.S. cannot be the world leader in telecommunications."



HERE'S ANOTHER WAY to put what Suzuki is saying to American companies: Invest and innovate—not an easy job in a fast-changing global market, where technological competence is proliferating and new challengers are increasingly emerging from countries that many in North America, Japan, and Europe still condescend to call the Third World. But America's industrial competitiveness—and the standard of living it can offer its citizens—ultimately hinges on how well U.S. managers and entrepreneurs, workers and politicians, do just that. ■

THE TOP MUTUAL FUNDS

Which funds really fattened your wallet after the broker, the portfolio manager, and the tax man took their cuts? Here's a look at the stars in 13 categories.

■ BY KAREN NICKEL

TO SAY THAT 1991 was a very good year for mutual funds is faint praise. It was a spectacular year. The average diversified stock fund rose 36.2%, outperforming Standard & Poor's 500-stock index (1991 return: 30.4%) for the first time since 1982. Nine of the funds on FORTUNE's list of the 100 best stock and bond funds had returns of 70% or more—and that's *after* subtracting all expenses, sales loads, and taxes.

For outsize performance, nothing beat small-company growth funds, which returned 45.6%, on average, after taxes and fees. Pretty impressive—until you compare it with the results of the superstars on FORTUNE's list. **Twentieth Century Ultra Investors** returned 86.5%, **Twentieth Century Giftrust Investors** 82.1%, and **Oberweis Emerging Growth** 77.2%. Many money managers believe that, after seven years in the wilderness, small-company stocks are now positioned to continue outperforming the S&P 500 for the next few years.

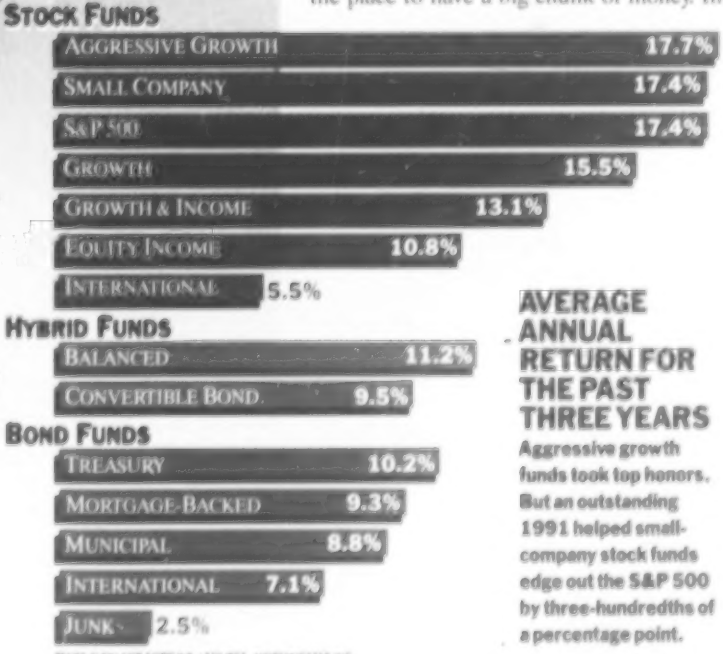
FORTUNE lists its 100 winners by three-year return in 13 categories (see chart). During that period, aggressive growth funds ranked as the best of the bunch, with an average annual return of 17.7%, even though the overall winner was Twentieth Century Ultra (three-year average annual return: 39.2%). Junk bond funds were the laggards, returning just 2.5% a year.

With short-term interest rates at their lowest levels in 27 years, stocks are clearly the place to have a big chunk of money. Investors are catching on. The Investment Company Institute, the national association of the mutual fund industry, says stock mutual funds took in 36% more money in 1991 than in 1990. Some funds can barely keep up with demand. Investors calling the Twentieth Century family of funds or **Alger Small Capitalization** are more likely to get a busy signal than a human voice.

Much of the new money has poured into the white-hot small-stock funds. In fact, their sudden popularity has prompted some of the more successful ones, including **Janus Venture** and **Nicholas Limited Edition**, to close to new investors. Small-company funds have a particular problem with rapidly rising inflows of cash. Since small-cap stocks can absorb only a limited amount of new money, the cash-rich small-stock funds may be forced to start buying larger-capitalization shares. This year's darling, Twentieth Century Ultra, saw its assets balloon from $450 million in January 1991 to nearly $3 billion by year's end. Partly as a result, the median capitalization of the companies Ultra invests in has risen from $441 million to $974 million.

To be eligible for FORTUNE's highly selective list, stock and bond funds must meet several criteria. They must be open to new investors. The manager—or at least one member on a team of managers—has to have been with the fund throughout the three-year period; that means the ace who steered the fund to its stellar returns is still at the helm. In the interests of diversity, funds that invest in a single sector, state, or foreign country have been excluded.

The performance numbers you see in FORTUNE's tables are quite different from the numbers you will see published elsewhere. Unlike most fund lists, ours calculates average annual returns *after* subtracting expenses, sales loads, and taxes on capital gains and income distributions. The SEC requires all funds to subtract annual



AVERAGE ANNUAL RETURN FOR THE PAST THREE YEARS

Aggressive growth funds took top honors. But an outstanding 1991 helped small-company stock funds edge out the S&P 500 by three-hundredths of a percentage point.

RENEE KLEIN FOR FORTUNE / SOURCE: MORNINGSTAR INC.

expenses—the percentage of assets retained by management to cover overhead—before calculating total return. But sales loads—the commission payments to the brokers or direct-marketers who sell the funds—aren't factored in, even though they can be quite substantial. FORTUNE's returns, compiled with the help of Morningstar Inc., the Chicago-based mutual fund rating service, tell you how much money you really have to take home—or to reinvest.

> Most investors underestimate the effect that capital gains taxes have on their returns.

We've taxed every distribution an investor in these funds would have received at the 28% rate before reinvesting the proceeds. Most investors underestimate the effect that capital gains taxes have on their returns. As Congress debates President Bush's latest call to cut the capital gains tax, here's a reminder of how much the government can share in your good fortune. **Founders Special**, a no-load aggressive growth stock fund, posted a three-year average annual return of 26.9%. But after subtracting taxes, the return falls to 22.6%. That means a $10,000 investment made three years ago is worth $18,419 today—not $20,411. The government's take amounted to nearly $2,000.

What you pay in capital gains tax is directly related to your fund's portfolio turnover rate. Each time the manager sells a stock that has gone up in value, he must, by law, pass along the gains to you. And you must pay capital gains taxes on them even if you decide to reinvest the proceeds. The more a stock fund sells its securities, the higher the turnover rate. **Robertson Stephens Emerging Growth** is a small-company fund with a high portfolio turnover—272% last year; that means the manager's trading volume was nearly three times the fund's assets. Because of the capital gains generated, Robertson Stephens lost 7% of its 35.9% return over the past three years to taxes. Twentieth Century Ultra, on the other hand, with a turnover rate of 42%, gave up only 3% of its 40.8% return to taxes. Looked at another way, a $10,000 investment in Robertson Stephens would have lost $1,742 to taxes, vs. $941 for Ultra.

Since bond funds generate lots of taxable interest income (municipal bond funds excepted), the after-tax returns shown here are also much lower than what you see promoted. And bond fund returns got a double tax whammy this year because as interest rates fell, the bonds incurred capital gains.

Our list also shows a fund's risk and its annual expenses. The risk ratings are a comparison of a fund's volatility relative to the returns on short-term Treasury bills. The annual expenses are expressed as a percentage of your assets that the fund keeps each year to cover its costs; these expenses can silently nibble away at your return. In general, it's better to buy funds with low expenses. The Vanguard Group is the king of low fees, but T. Rowe Price, Benham Group, and Scudder Stevens & Clark are good bets too.

Investment strategists often recommend putting your money in a management company with a wide array of funds. This allows you to move money quickly among different types of funds. For example, if you think international stocks are due for a boom, you could easily switch into an international fund from, say, a growth fund that has had a good run-up lately. It isn't easy to find a team full of all-stars, but FORTUNE's list shows a few standouts. For sheer numbers, Twentieth Century Mutual Funds is remarkable. Five of its 13 funds made our list of top performers, so chances are good that you can switch from a winner to a winner. If your call gets through.

STOCK FUNDS

MUTUAL FUND BY CATEGORY TELEPHONE	AVG. ANNUAL RETURN[1] 3 years	 1 year	ASSETS 12/31/91 in millions	FEES Sales load	 Annual expenses	PORTFOLIO TURNOVER	RISK	MANAGER
AGGRESSIVE GROWTH GROUP AVERAGE[2]	17.7%	39.1%						
Kaufmann 800-237-0132	34.7%	77.3%	$140	0.20%[3]	3.50%	195%	Above avg.	L. Auriana, H.Utsch
Enterprise Capital Appreciation 800-432-4320	27.9%	51.4%	$33	4.75%	1.75%	45%	Below avg.	Jeff Miller
AIM Constellation 800-347-1919	26.5%	60.3%	$487	5.50%	1.40%	109%	Above avg.	H. Hutzler, J. Schoolar
Keystone Custodian S-4 800-343-2898	24.0%	61.1%	$783	4.00%[4]	1.38%	57%	Above avg.	Roland Gillis
Thomson Opportunity B 800-628-1237	23.5%	62.1%	$80	1.00%[4]	2.00%	145%	Above avg.	Donald Chiboucas
Seligman Capital 800-221-2450	22.9%	42.6%	$173	4.75%	1.04%	23%	Average	Loris D. Muzzatti
Founders Special 800 525-2440	22.6%	60.1%	$224	None	1.09%	89%	Average	Multiple managers
Strong Discovery 800-368-3863	22.5%	56.6%	$163	2.00%	1.90%	494%	Average	R. Strong, W. Corneliuson
MetLife-State St. Cap. Apprec. 800-882-0052	22.2%	66.6%	$101	4.50%	1.50%	246%	High	Fred Kobrick
Kemper Summit 800-621-1048	21.7%	55.6%	$353	5.75%	1.25%	126%	Average	C. Beth Cotner
GROWTH GROUP AVERAGE[2]	16.5%	29.6%						
Janus Twenty 800-525-8983	36.2%	68.4%	$1,348	None	1.07%	163%	Average	Thomas Marsico
Berger 100 800-333-1001	35.6%	88.0%	$192	None	2.24%	78%	Average	William Berger
Twentieth Century Growth 800-345-2021	31.3%	69.0%	$3,879	None	1.00%	69%	Average	Multiple managers
Vanguard World U.S. Growth 800-662-7447	27.8%	46.2%	$978	None	0.74%	49%	Below avg.	J. P. Hall III, D. Fowler
MIM Stock Appreciation 800-233-1240	27.7%	71.3%	$13	None	2.70%	185%	Average	Arthur J. Bonnel
Pasadena Growth 800-882-2855	26.6%	58.5%	$324	5.50%	2.20%	32%	Above avg.	Roger Engemann
AMEV Growth 800-800-2638	26.5%	57.4%	$421	4.75%	1.20%	58%	Above avg.	Stephen Poling

[1]Performance is through December 1991 and net of annual expenses, brokerage costs, and sales loads, also net of taxes, assuming a 28% rate for capital gains and income distributions. [2]Average annual return for all funds tracked by Morningstar in each category. [3]Redemption fee. [4]Deferred sales charge, which declines over time.

JIM MCDONNOUGH

STOCK FUNDS

MUTUAL FUND BY CATEGORY TELEPHONE	AVG. ANNUAL RETURN[1] 3 years	 1 year	ASSETS 12/31/91 in millions	FEES Sales load	 Annual expenses	PORTFOLIO TURNOVER	RISK	MANAGER
GROWTH cont'd								
Fidelity Growth Company 800-544-8888	**26.1%**	41.1%	**$1,376**	3.00%	1.11%	**161%**	Average	Robert Stansky
Piper Jaffray Value 800-333-6000	**25.1%**	40.2%	**$137**	4.00%	1.32%	**36%**	Average	John Tauer Jr.
IDEX II 800-624-4339	**24.9%**	48.2%	**$186**	5.50%	1.48%	**102%**	Average	Thomas Marsico
GROWTH & INCOME GROUP AVERAGE[2]	**13.1%**	23.4%						
AIM Charter 800-347-1919	**22.4%**	28.5%	**$587**	5.50%	1.29%	**144%**	Low	Julian Lerner
CIGNA Value 800-572-4462	**18.6%**	32.1%	**$152**	5.00%	1.21%	**131%**	Average	James Giblin
SteinRoe Prime Equities 800-338-2550	**18.0%**	30.7%	**$63**	None	1.00%	**48%**	Below avg.	Ralph Segall
Sit "New Beginning" Inc. & Gr. 800-332-5580	**17.7%**	31.1%	**$31**	None	1.50%	**70%**	Below avg.	Peter L. Mitchelson
U.S. Boston Gr. & Inc. Ordinary 800-872-7866	**17.4%**	23.5%	**$44**	1.00%[3]	1.80%	**96%**	Below avg.	J. Kimball Dow
Vanguard Quantitative 800-662-7447	**17.4%**	28.2%	**$335**	None	0.48%	**81%**	Average	John Nagorniak
FAM Value 800-932-3271	**17.1%**	38.2%	**$14**	5.00%[4]	1.53%	**9%**	Below avg.	T. Putnam, D. Van Buren
Stagecoach Corporate Stock 800-222-8222	**17.1%**	28.7%	**$205**	None	0.97%	**6%**	Average	Geraldine Ham
Fidelity U.S. Equity Index 800-544-8888	**16.8%**	28.7%	**$1,051**	None	0.28%	**4%**	Below avg.	Jonathan Weed
MIMLIC Investors I 800-443-3677	**16.8%**	29.8%	**$20**	5.00%	1.31%	**33%**	Below avg.	James P. Tatera
EQUITY INCOME GROUP AVERAGE[2]	**10.8%**	21.1%						
Kidder Peabody Equity Income 212-656-1731	**21.8%**	39.7%	**$127**	5.75%	1.60%	**178%**	Low	John Chadwick
Financial Industrial Income 800-525-8085	**21.7%**	43.3%	**$1,597**	None	0.94%	**104%**	Low	John Kaweske
Helmsman Income Equity 800-338-4345	**13.1%**	22.0%	**$103**	None	0.42%	**9%**	Low	Ralph Patek
Stratton Monthly Div. Shares 800-634-5726	**12.9%**	32.2%	**$43**	None	1.24%	**43%**	Low	G. Heffernan, J. Stratton
SteinRoe Total Return 800-338-2550	**12.7%**	26.9%	**$157**	None	0.87%	**71%**	Low	Robert Christensen
Capital Income Builder 800-421-0180	**12.2%**	16.6%	**$657**	5.75%	1.01%	**25%**	Low	Multiple managers
Keystone America Equity Income 800-343-2898	**12.1%**	17.7%	**$26**	4.75%	2.00%	**50%**	Low	Walter McCormick
Founders Equity Income 800-525-2440	**11.4%**	20.2%	**$19**	None	1.65%	**107%**	Low	Multiple managers
Dean Witter Equity Income 800-869-3863	**11.4%**	14.9%	**$150**	5.00%[4]	2.09%	**131%**	Below avg.	Ken Hinchliffe
Amana Mutual Funds Trust Inc. 800-728-8762	**11.2%**	22.8%	**$7**	None	1.66%	**29%**	Low	Nicholas Kaiser
SMALL COMPANY GROUP AVERAGE[2]	**17.4%**	45.6%						
Twentieth Century Ultra Investors 800-345-2021	**39.2%**	86.5%	**$2,940**	None	1.00%	**42%**	Above avg.	Multiple managers
Alger Small Capitalization 800-992-3863	**34.7%**	45.0%	**$81**	5.00%[4]	2.31%	**253%**	Above avg.	David Alger
Robertson Stephens Em. Growth 800-766-3863	**32.7%**	56.1%	**$142**	None	1.53%	**272%**	Above avg.	Robert Czepiel
Hartwell Emerging Growth 800-343-2898	**31.7%**	60.3%	**$108**	4.75%	2.50%	**96%**	High	John M. Hartwell
MFS Lifetime Emerging Growth 800-225-2606	**30.5%**	74.2%	**$191**	6.00%[4]	2.66%	**86%**	High	John Ballen
Twentieth Century Giftrust Inv. 800-345-2021	**30.3%**	82.1%	**$64**	None	1.00%	**143%**	High	Multiple managers
Oberweis Emerging Growth 800-323-6166	**30.3%**	77.2%	**$20**	None	2.15%	**44%**	High	James Oberweis
Twentieth Century Vista Investors 800-345-2021	**29.7%**	73.7%	**$767**	None	1.00%	**92%**	High	Multiple managers
Sit "New Beginning" Growth 800-332-5580	**28.2%**	64.3%	**$209**	None	1.03%	**37%**	Average	Douglas C. Jones
Scudder Development 800-225-2470	**26.9%**	70.5%	**$893**	None	1.29%	**71%**	Above avg.	Roy C. McKay
INTERNATIONAL GROUP AVERAGE[2]	**5.5%**	8.9%						
Oppenheimer Global 800-525-7048	**15.2%**	19.3%	**$1,171**	5.75%	1.77%	**27%**	Average	Ken Oberman
Smith Barney International Equity 800-544-7835	**13.6%**	26.6%	**$45**	4.50%	2.88%	**67%**	Average	Multiple managers
Dreyfus Strategic World Investing 800-645-6561	**13.5%**	14.1%	**$55**	3.00%	1.78%	**566%**	Low	Fiona Biggs
Harbor International 800-422-1050	**13.3%**	21.1%	**$221**	None	1.35%	**19%**	Average	Hakan Castegren
Scudder Global 800-225-2470	**13.0%**	15.4%	**$299**	None	1.81%	**38%**	Below avg.	William E. Holzer
G.T. Pacific Growth 800-824-1580	**10.9%**	6.0%	**$334**	4.75%	2.00%	**74%**	Average	Christian Wignall
G.T. Worldwide Growth 800-824-1580	**10.8%**	14.2%	**$128**	4.75%	1.90%	**122%**	Average	Christian Wignall
T. Rowe Price Intl. Discovery 800-638-5660	**10.7%**	11.4%	**$167**	None	1.50%	**14%**	Above avg.	Martin G. Wade
GAM Pacific Basin 212-888-4200	**10.5%**	10.6%	**$36**	5.00%	2.23%	**103%**	Average	Michael Bunker
New Perspective 800-421-0180	**10.3%**	14.3%	**$2,458**	5.75%	0.82%	**14%**	Below avg.	Multiple managers

[1]Performance is through December 1991 and net of annual expenses, brokerage costs, and sales loads; also net of taxes, assuming a 28% rate for capital gains and income distributions. [2]Average annual return for all funds tracked by Morningstar in each category. [3]Redemption fee. [4]Deferred sales charge, which declines over time.

HYBRIDS, BOND FUNDS

MUTUAL FUND BY CATEGORY / TELEPHONE	AVG. ANNUAL RETURN[1] 3 years	1 year	ASSETS 12/31/91 in millions	FEES Sales load	Annual expenses	PORTFOLIO TURNOVER	RISK	MANAGER
BALANCED GROUP AVERAGE[2]	**11.2%**	**18.9%**						
Twentieth Century Balanced 800-345-2021	**22.0%**	45.8%	**$351**	None	1.00%	**116%**	Average	Multiple managers
Pasadena Balanced Return 800-882-2855	**19.2%**	30.7%	**$16**	5.50%	2.50%	**36%**	Above avg.	Roger Engemann
Equitable Balanced B 800-852-6860	**18.4%**	31.5%	**$30**	5.00%[4]	2.15%	**137%**	Below avg.	Judy Taylor
Kemper Inv. Port. Total Return 800-621-1048	**17.5%**	36.1%	**$747**	3.00%[4]	2.24%	**121%**	Below avg.	C. Beth Cotner
CGM Mutual 800-345-4048	**17.4%**	36.0%	**$402**	None	0.95%	**261%**	Above avg.	G. Kenneth Heebner
Kemper Total Return 800-621-1048	**16.3%**	29.8%	**$1,087**	5.75%	0.87%	**157%**	Average	Gordon Wilson
Pax World 800-767-1729	**15.5%**	16.9%	**$271**	None	1.30%	**39%**	Low	Anthony Brown
MainStay Total Return 800-522-4202	**15.4%**	27.3%	**$165**	5.00%[4]	2.40%	**213%**	Average	Multiple managers
Phoenix Balanced 800-243-4361	**14.5%**	16.6%	**$1,108**	4.75%	0.90%	**193%**	Low	Patricia Bannan
Dodge & Cox Balanced 415-434-0311	**12.5%**	19.0%	**$197**	None	0.70%	**10%**	Average	Multiple managers
CONVERTIBLE BOND GROUP AVERAGE[2]	**9.5%**	**23.7%**						
Pacific Horizon Capital Income 800-332-3863	**13.7%**	29.4%	**$5**	4.50%	0.90%[5]	**236%**	Average	William Hensel
Concord Income Convertible 800-274-7866	**11.3%**	37.7%	**$7**	4.50%	2.50%	**26%**	Average	Richard B. Russell
Vanguard Convertible Securities 800-662-7447	**10.8%**	32.3%	**$60**	None	0.88%	**55%**	Above avg.	Rohit M. Desai
SBSF Convertible Securities 800-422-7273	**10.2%**	24.9%	**$30**	None	1.39%	**32%**	Below avg.	Louis R. Benzak
American Capital Harbor A 800-421-5666	**9.4%**	13.9%	**$385**	5.75%	0.89%	**71%**	Below avg.	James H. Behrmann
JUNK GROUP AVERAGE[2]	**2.5%**	**25.2%**						
Plymouth High-Yield 800-522-7297	**8.7%**	24.1%	**$44**	4.75%	1.10%	**103%**	Low	Margaret Eagle
Oppenheimer Champ. High Yield 800-525-7048	**7.0%**	20.2%	**$19**	4.75%	1.52%	**68%**	Low	Ralph Stellmacher
American High-Income 800-421-0180	**6.5%**	22.3%	**$285**	4.75%	1.00%	**44%**	Below avg.	R. Schotte, D. Barclay
Merrill Lynch Corp. High-Inc. B 800-637-3863	**6.3%**	29.0%	**$335**	4.00%[4]	1.40%	**40%**	Below avg.	V. Lathbury, A. Schwartz
Merrill Lynch Corp. High-Inc. A 800-637-3863	**6.1%**	29.6%	**$543**	4.00%	0.66%	**40%**	Below avg.	V. Lathbury, A. Schwartz
MORTGAGE BACKED GROUP AVERAGE[2]	**9.3%**	**8.0%**						
Managers Intermediate Mortgage 800-835-3879	**11.4%**	15.0%	**$167**	None	0.70%	**214%**	Below avg.	Worth Bruntjen
Vanguard Fixed Income GNMA 800-662-7447	**11.2%**	14.1%	**$5,298**	None	0.30%	**1%**	Average	Paul G. Sullivan
Lexington GNMA Income 800-526-0056	**10.8%**	13.2%	**$122**	None	1.06%	**146%**	Average	Denis Jamison
Benham GNMA Income 800-472-3389	**10.4%**	12.9%	**$703**	None	0.64%	**207%**	Below avg.	Randall Merk
T. Rowe Price GNMA 800-638-5660	**10.2%**	12.4%	**$735**	None	0.87%	**92%**	Average	Peter Van Dyke
TREASURY GROUP AVERAGE[2]	**10.2%**	**12.3%**						
Vanguard L-T U.S. Treasury 800-662-7447	**11.1%**	15.0%	**$893**	None	0.28%	**147%**	High	I. MacKinnon, A. Jiorle
Dreyfus U.S. Treasury L-T 800-645-6561	**11.0%**	15.5%	**$217**	None	0.02%	**31%**	Above avg.	Barbara Kenworthy
Stagecoach U.S. Govt. Allocation 800-237-8472	**10.0%**	11.9%	**$30**	4.50%	1.02%	**558%**	Average	Janice Deringer
Dreyfus U.S. Treas. Interm. 800-645-6561	**9.5%**	12.6%	**$183**	None	0.93%	**4%**	Average	Barbara Kenworthy
Benham Treasury Note 800-472-3389	**9.4%**	11.6%	**$302**	None	0.61%	**70%**	Below avg.	Jeff Tyler
MUNICIPAL GROUP AVERAGE[2]	**8.8%**	**7.6%**						
General Municipal Bond 800-645-6561	**11.2%**	14.6%	**$683**	None	0.92%[5]	**50%**	Average	Paul Disdier
Financial Tax-Free Inc. Shares 800-525-8085	**10.3%**	12.2%	**$248**	None	0.93%	**25%**	High	Bill Veronda
Vanguard Municipal Long-Term 800-662-7447	**10.1%**	12.9%	**$888**	None	0.25%	**62%**	High	I. MacKinnon, J. Jacobs
SAFECO Municipal Bond 800-426-6730	**9.7%**	13.6%	**$422**	None	0.55%	**31%**	Above avg.	Steve Bauer
Vanguard Municipal Interm. 800-662-7447	**9.6%**	12.0%	**$2,460**	None	0.25%	**27%**	Below avg.	I. MacKinnon, J. Jacobs
INTERNATIONAL GROUP AVERAGE[2]	**7.1%**	**5.7%**						
Van Eck World Income 800-221-2220	**10.6%**	9.8%	**$148**	4.75%	1.61%	**276%**	Above avg.	K.Buescher, D. Kenerson
Fidelity Global Bond 800-544-8888	**8.9%**	10.4%	**$184**	None	1.35%	**228%**	Above avg.	Judy Pagliuca
MFS Worldwide Governments 800-225-2606	**8.7%**	5.9%	**$292**	4.75%	1.70%	**220%**	High	Leslie J. Nanberg
Merrill Lynch Global B 800-637-3863	**8.6%**	7.6%	**$381**	4.00%[4]	1.81%	**160%**	High	David Walter
Merrill Lynch Global A 800-637-3863	**7.6%**	8.1%	**$21**	4.00%	1.03%	**160%**	High	David Walter

Performance is through December 1991 and net of annual expenses, brokerage costs, and sales loads; also net of taxes, assuming a 28% rate for capital gains and income distributions. [1]Average annual return for all funds tracked by Morningstar in each category. [3]Redemption fee. [4]Deferred sales charge, which declines over time. [5]Currently absorbed by the management company.